

UNITED STATES DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

NORTH DAKOTA STATE UNIVERSITY  
AGRICULTURAL EXPERIMENT STATION

SOUTH DAKOTA STATE UNIVERSITY  
AGRICULTURAL EXPERIMENT STATION

and

UNIVERSITY OF MINNESOTA  
AGRICULTURAL EXPERIMENT STATION

NOTICE TO NURSERYMEN OF THE NAMING AND RELEASE OF 'SCARLET' MONGOLIAN CHERRY.

'SCARLET' Mongolian cherry Prunus fruticosa Pallas is a seed propagated cultivar recommended for use in multi-row farmstead and field windbreaks, wildlife habitat, and other plantings associated with revegetation of transportation and transmission corridors.

'Scarlet' is a small, strongly suckering shrub with a mature plant height of **4-6** feet (**122-183** cm), The leaves vary from obovate to oblanceolate and lanceolate. The apex acuminate or sometimes obtuse, closely serrulate, thick, shiny above, the petiole short. 'Scarlet' blooms in May, its white flowers are nearly sessile umbels. The small deep red fruit ripens in July.

In **1938**, seed of Mongolian cherry, Prunus fruticosa Pallas reported to have been collected in northern Mongolia, was received by the Canada Department of Agriculture, Research Station, Morden, Manitoba, Canada, from S. Shundenko, Tchebabinsk Fruit Breeding Station, USSR. 'Scarlet' (**ND-3**) originated from twenty-five seedlings received May **3, 1955** from the Canada Department of Agriculture, Research Station, Morden, Manitoba, Canada, and planted for initial evaluation on the USDA, Soil Conservation Service, Plant Materials Center, Increase Block, Bismarck, North Dakota. This planting has been designated the breeder seed source. Open-pollinated seed from this planting will be used to grow foundation stock.

The USDA, Soil Conservation Service has evaluated the adaptation and performance of 'Scarlet' as ND-3 (**6072T**) (**PI-478003**) Mongolian cherry at the Plant Materials Centers located at Bismarck, North Dakota; Manhattan, Kansas; East Lansing, Michigan; and Elsberry, Missouri. Field evaluation studies were conducted cooperatively with North Dakota State University, Bottineau Branch; South Dakota State University, Central Research Station, Highmore; University of Minnesota, West Central Experiment Station, Morris; USDI, Fish and Wildlife Service, Lake Andes NWR, Lake Andes, South Dakota; North Dakota Game and Fish Department, McKenzie Slough GMA, Burleigh Co., North Dakota; and other state and federal agencies, and conservation district cooperators.

The seed production (quality and quantity), strong suckering habit, attractive glossy foliage and longevity (15-20 years) of 'Scarlet' Mongolian cherry are valuable conservation characteristics equal to or superior to other comparable species: sand cherry Prunus pumila L., western sand cherry Prunus pumila besseyi (L. H. Bailey) Gleason, and Nanking cherry Prunus tomentosa Thunb.

'Scarlet' has performed well on deep, fine to moderately fine textured well drained soils and climatic conditions typical of the northern Great Plains (Jacobson, E. T. and Haas, R. J. Data to Support Release of 'Scarlet' Mongolian cherry, 1983).

The results of these studies and others in adjacent states indicate that 'Scarlet' is primarily adapted to North Dakota, South Dakota and Minnesota as shown in Figure 1. Its use is not currently recommended for planting beyond this area.

The USDA, Soil Conservation Service, Plant Materials Center, P.O. Box 1458, Bismarck, North Dakota 58502, will maintain breeder seed and foundation stock of 'Scarlet' Mongolian cherry. Certified seed (source identified and selected class) will be available from growers approved by State Certified Seed Departments. Standards for all classes of seed are published in the North Dakota Tree and Shrub Certification Standards, North Dakota State Seed Department, Fargo, North Dakota, 1974.

Thomas N. Shiflet

Director

Ecological Sciences Division  
United States Department of Agriculture  
Soil Conservation Service  
Washington, D.C.

3/12/84  
Date

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State Conservationist

United States Department of Agriculture  
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JAN 12 1984  
Date

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Date

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2-17-84  
Date

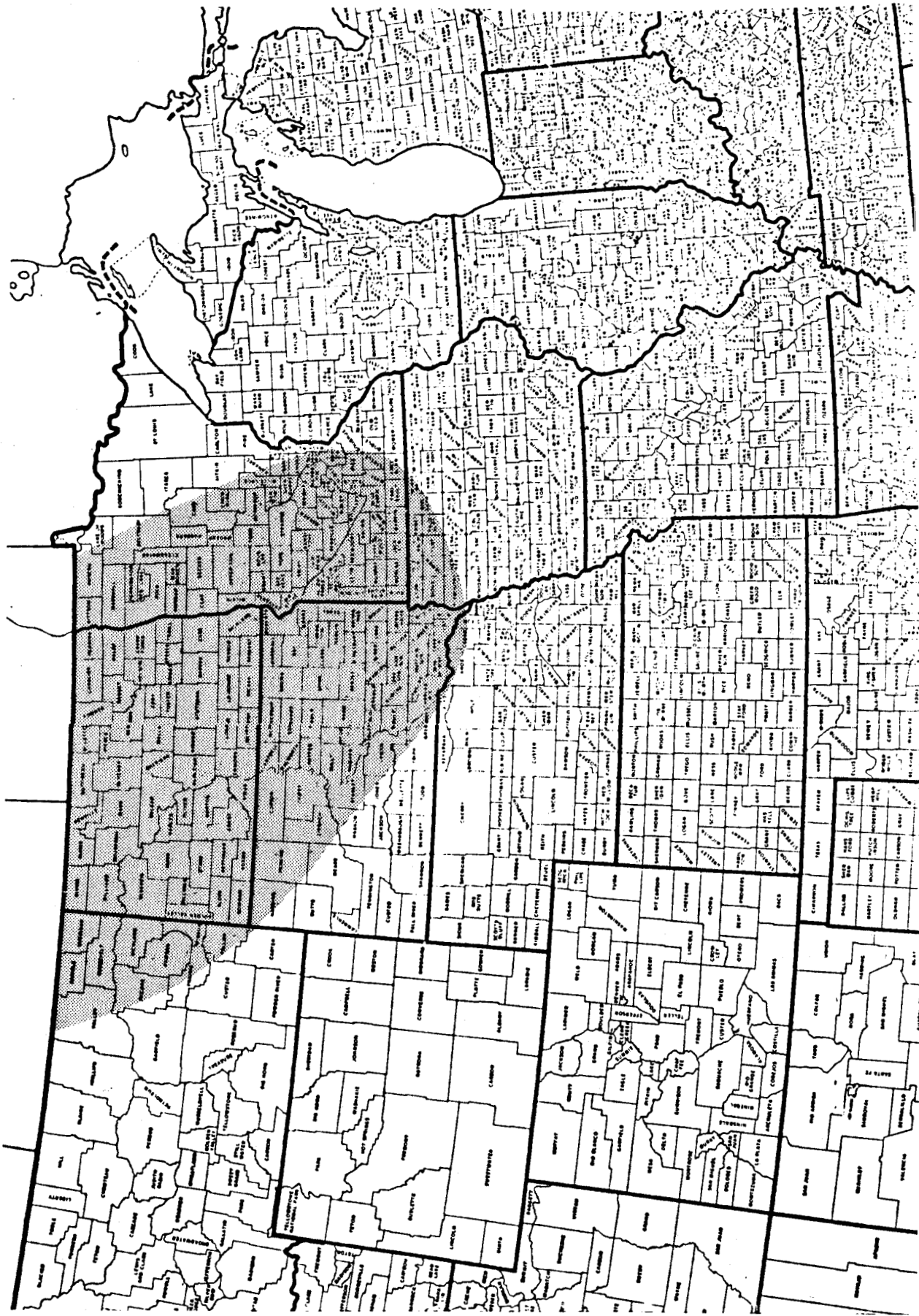


Fig. 1 Area of adaptation 'Scarlet' Mongolian cherry, *Prunus fruticosa* Pallas

DATA TO SUPPORT RELEASE OF 'SCARLET' MONGOLIAN CHERRY

Cultivar: 'Scarlet'

Accession No.: ND-3, 6072T, PI-478003

Common Name: Mongolian cherry

Scientific Name: Prunus fruticosa Pallas

Symbol: PRFR2 (USDA,SCS,1982)

Description: 'Scarlet' Mongolian cherry is a small suckering shrub, 4-6 feet (122-183 cm) in height, with slender glabrous branchlets. The leaves vary from obovate to oblanceolate and lanceolate. The apex acuminate or sometimes almost obtuse, closely serrulate, thick, shiny above, the petiole short. 'Scarlet' blooms in May, its flowers are white in nearly or quite sessile umbels. The small cherry-like fruit ripens in July and is red to purple-red and very tart.

Origin: Open-pollinated seed of Mongolian cherry has been tested as ND-3 (6072T) by the USDA, Soil Conservation Service, Plant Materials Center (PMC), Bismarck, North Dakota. It originated from 215 grams of open-pollinated seed collected September 22, 1954 at the Canada Department of Agriculture, Research Station, Morden, Manitoba, Canada. In addition, twenty-five seedlings received May 3, 1955 from the Research Station, Morden were planted for initial evaluation at the Bismarck Plant Materials Center. Open-pollinated seed from these plantings and seed collections in 1957, 1964 and 1966 from plants located on the Research Station, Morden, Manitoba, have been used to grow seedlings for field testing.

The following excerpt from the Canada Department of Agriculture, Experiment Farm, Morden, Manitoba, Canada, 1947-54 Progress Report, prepared by W. R. Leslie, Superintendent, documents the origin of Prunus fruticosa introductions: "... In 1938, seed of the Mongolian cherry, Prunus fruticosa Pallas, a dwarf, bush-like sour cherry reported to have been collected in northern Mongolia was received from S. Shundenko, Tchebabinsk Fruit Breeding Station, USSR. The resulting seedlings have exhibited wide variation in fruit size and quality, and in plant habit. Foliage characteristics also vary greatly. Out of the 600 seedlings over 20 were selected for further study. ... Seven sour cherry selections received the introduction numbers of M-504 to M-510, inclusive, in the fall of 1950. All open pollinated seedlings of Prunus fruticosa have been fully hardy, annually productive, and very acceptable ..." (Leslie 1954).

Uses: 'Scarlet' is a seed propagated cultivar recommended for use as a small shrub in wildlife plantings and the outside rows of multi-row farmstead plantings. It is not recommended for single-row field windbreaks. The fruit, buds, and tips of small branches, provide food and browse, and the suckering habit of the plant forms dense thickets that create habitat for many species of wildlife.

Performance: USDA, Soil Conservation Service has evaluated the adaption and performance of ND-3 (6072T) (PI-478003) Mongolian cherry for windbreak and wildlife habitat purposes in the North Central and Northern Great Plains states. Initial evaluation studies (Tables 1, 2, 3 and 4) were conducted at Plant Materials Centers located at Bismarck, North Dakota; Manhattan, Kansas; East Lansing, Michigan; and Elsberry, Missouri. The results of these studies indicate that 'Scarlet' is primarily adapted to the Northern Great Plains states of North Dakota, South Dakota and Minnesota. Field evaluation studies are being conducted at off-center planting sites located on land provided by cooperating state and federal agencies to further evaluate performance, soil and climatic

adaption. Refer to Tables 5, 6 and 7. The Soil Conservation Service has evaluated ND-3 (6072T) (478003) on conservation district cooperators land in farmstead and wildlife habitat plantings under actual use conditions. The performance of these plantings is shown in Tables 8, 9 and 10.

'Scarlet' reaches maturity at 15-20 years of age. The height at maturity ranges 4 to 6 feet (122-183 cm), crown width 10 to 15 feet (305-457 cm) with potential to form a dense thicket 20 or more feet in width. Mean survival ranges 60-90 percent under field conditions, with good to excellent (80-100 percent) stands reported in several locations. Weed competition is a very important factor affecting performance. The establishment and rate of growth are also affected by adverse soil factors, drought, and wildlife use. Mongolian cherry is highly preferred by white tail deer. There are no apparent insect or disease problems. Seed production is rated good to excellent. An excerpt from the Canadian Department of Agriculture, Experiment Farm, Morden, Manitoba, 1947-54 Progress Report summarizes the other characteristics of Mongolian cherry: "...Since first fruiting in 1942 it has been particularly impressive as a small, bush-type sour cherry with great potentialities for the prairies... The productiveness attributable to several factors... (a) a high degree of inherent cold resistance as evidenced by its ability to withstand extreme winters of the northern prairies; (b) a late blooming habit that has enabled the blossoms to escape late spring frosts and thereby set a bountiful crop in most seasons, and (c) a short growing season and early fall maturity of wood so that very little injury has occurred from early frosts", (Leslie 1954).

'Scarlet' Mongolian cherry is a small suckering shrub with attractive glossy foliage, capable of producing an abundance of red, cherry-like, edible fruit. Its seed production, strong suckering habit, foliage, and survival (longevity) are valuable conservation characteristics equal to or superior to other comparable species: sand cherry Prunus pumila L., western sand cherry Prunus pumila besseyi (L. H. Bailey) Gleasen, and Nanking cherry Prunus tomentosa Thunb. Sand cherry is a small, native, non-suckering shrub with a willow-like habit of growth. Common on sandy lake shores, outwash plains and dunes in east central Minnesota. The fruit is nearly black when ripe, usually astringent and of poor quality. Western sand cherry is a low-growing shrub native to Minnesota, west to Wyoming, south to Colorado and Kansas. It is differentiated from sand cherry and Nanking cherry by its prostrate growth form. Nanking cherry is a winter-hardy, fast-growing, non-suckering, short-lived shrub, native to China, Manchuria, and Japan. The fruit is bright red of high quality. In most farmstead plantings it has a life expectancy of 8 to 10 years.

Adaptation: The primary area of adaptation of 'Scarlet' is in the Northern Great Plains Region, northwestern portions of the Central Feed Grains and Livestock Region and the Northern Lake States Forest and Forage Region (North Dakota, South Dakota and Minnesota) - Land Resource Areas: 53A, 53B, 53C - Dark Brown Glaciated Plains; 54 - Rolling Soft Shale Plain; 55A, 55B, 55C - Black Glaciated Plains; 56 - Red River Valley of the North. 61 - Black Hills Foot Slopes; 102A - Rolling Till Prairie; 102B - Loess Uplands and Till Plains; 103 - Central Minnesota Till Prairie; 57 - Northern Minnesota Gray Drift; 91 - Minnesota Sandy Outwash. 'Scarlet' is not recommended beyond these Land Resource areas. The physical features are described in Land Resource Regions and Major Land Resource Areas of the United States (USDA, SCS, 1981).

Soils: 'Scarlet' is currently recommended for planting on soils that are in USDA Soil Conservation Service, Technical Guide, Windbreak Suitability Group 1 (deep, fine to moderately fine textured, well drained); Group 2 (deep and moderately deep, poorly and very poorly drained soils with a high water table); Group 3 (deep and moderately deep, well and moderately well drained loamy and silty soils); and Group 5 (deep loamy and sandy, well drained to moderately well drained soils with a moderate available water capacity). It is not recommended on Minnesota WSG-2W (very poorly drained, depressional soils which are subject to ponding); and WSG-20 (very poorly drained, depressional soils with organic materials more than 16 inches thick).

Climate, Elevation and Topography: The average annual precipitation of the area of adaptation for 'Scarlet' ranges from 10 to 30 inches (25.4 to 76.2 cm), increasing from west to east, with the highest amount occurring during the growing season. Winter precipitation is snow, which accumulates in drifts of varying depths modifying the micro-climate in windbreaks. The average annual temperatures range from 40 to 50°F (4 to 10°C), average frost-free period is 100 to 160 days. The plant hardiness zones include 3a, 3b, 4a, and 4b with average annual minimum temperatures that range from -40 to 20°F (USDA, ARS 1960). The elevation ranges from 1,000 to 4,000 feet (300 to 1200 m) increasing from east to west. The glacial plain is nearly level to gently rolling with hilly to steep slopes bordering the Missouri River and its major tributaries and streams.

Propagation: 'Scarlet' Mongolian cherry is a seed propagated cultivar.

Collection of Fruit: Fruits are ripe when they turn red, this is usually in July. They may be collected by stripping or flailing them from the bushes onto canvas or they can be picked by hand. Care should be taken to prevent fruit from heating.

Extraction and Storage of Seed: After twigs, leaves and other debris have been removed by screening or fanning, the fruit can be depulped by wet maceration and the pulp floated off. Seed should be kept clean and dry. 15 pounds (7 kg) of fruit will yield approximately 1 pound (454 g) of clean seed with an average of about 5,000 seeds per pound. Dry clean seed stores well in sealed containers at 41°F (5.0°C).

Nursery Practice: Untreated seed may be planted in the fall or stratified seed may be planted in the spring. If spring planted, the seed should be stratified 120 days in damp sand at 41°F (5.0°C). Stratified seed should be planted as early in the spring as possible. It is best if a high proportion of the stratified seed has begun germination but have not yet begun radicle elongation (Bonner 1974). Seed should be planted at a rate of 10-15 viable seeds per square foot. Seeds should be covered with 1/2 to 3/4 inch (12.7-25.4 mm) of soil. Straw mulch about 1/2 to 1 inch (13-25.4 mm) deep helps protect the planting. Field planting stock should be 2-0 with a height of 12-24 inches (30 to 60 cm) and a caliper at one inch (25.4 mm) above the root collar of 3/16 to 1/2 inch (5-13 mm).

Sources of Seed and Planting Stock: The USDA, Soil Conservation Service, Plant Materials Center, P.O. Box 1458, Bismarck, North Dakota 58502, will maintain breeder seed and foundation stock of 'Scarlet' Mongolian cherry. Certified seed (source identified and selected class) will be available from growers approved by the State Certified Seed Departments. Standards for all classes of seed are published in the North Dakota Tree and Shrub Certification Standards (North Dakota State Seed Department 1974).

References:

Bonner, F. T. 1974. Seeds of woody plants of the United States, Prunus L.  
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Leslie, W. R. 1954. Progress Report 1947-54, Canada Department of Agriculture,  
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North Dakota State Seed Department. 1974. North Dakota tree and shrub standards.  
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USDA, Agricultural Research Service. 1960. Plant hardiness zone map, USDA Misc.  
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Resource Areas of the United States, Agric. Handbook 296, 156 p.

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Names. SCS-TP-159, Vol. 1, 416 p.

Prepared by: The data to support release of 'Scarlet' Mongolian cherry was  
assembled by Erling T. Jacobson, Plant Materials Specialist and Russell J.  
Haas, Plant Materials Center Manager, USDA, Soil Conservation Service,  
Bismarck, North Dakota, August 1983.



TABLE 1 DATA TO SUPPORT RELEASE OF 'SCARLET' MONGOLIAN CHERRY

PROJECT PLAN NO. 38F503

USDA - SOIL CONSERVATION SERVICE

004 - GENUS PRUNUS005 - SPECIES FRUTICOSA

001 - ACC. NO. ND-3, 6072T, 478003

504 - ST - 38 - NORTH DAKOTA

517 - PURPOSE - WNBR/WLDF - FIELD EVALUATION PLANTINGS

506	507	509		505	503	PLOT	520	501		518	NO	532		553		525	627
<u>MLRA</u>	<u>SOIL</u>	<u>TEX</u>	<u>WSG</u>	<u>COUNTY</u>	<u>COOP</u>	<u>LOC .</u>	<u>DATE</u>	<u>YR</u>	<u>AGE</u>	<u>NO</u>	<u>PLT</u>	<u>PCT</u>	552	<u>CRN</u>	<u>V</u>	<u>WD</u>	<u>ERO</u>
							<u>PLT</u>	<u>RC</u>		<u>PLTS</u>	<u>SRV</u>	<u>SRV</u>	<u>HT</u>	<u>SPD</u>	<u>I</u>	<u>COMP</u>	<u>ADP</u>
053B	Havrelon	SICL	1	Burleigh	USDA, SCS, PMC, Bismarck, ND 49-6		05-09-55	60	5	25	25	100			1	1	1
					Lincoln-Oakes Nursery			61	6	25	25	100			1	1	1
					Increase Block			62	7	25	25	100	3.5	8.0	1	1	1
					<u>Source :</u>			63	8	25	25	100	4.5	9.0	1	1	1
					Canada Department of Agriculture			64	9	25	25	100	4.6	9.0	1	1	1
					Research Station, Morden, Manitoba			65	10	25	25	100	5.0	9.0	1	1	1
					Canada			66	11	25	25	100	5.5	12.5	1	1	1
					These are the original seedings			67	12	25	25	100	6.0	13.0	1	1	1
					received May 3, 1955			69	14	25	25	100	7.0	15.0	1	1	1
								70	15	25	25	100	7.0	15.0	1	1	1
								71	16	25	25	100	7.0	13.0	1	1	1
								72	17	25	1/	-	8.0	13.0	5	1	1
								76	21	25	2/	-	8.4	-	3	1	3
		558		559													
		FLW		FRV													
		<u>PER</u>		<u>ABD</u>													
		05/13-		1-													
		06/01		3													

1/ Estimated 2/3 of plts weak or dead - age x drought

2/ Large clump, spreading

TABLE 2 DATA TO SUPPORT RELEASE OF 'SCARLET' MONGOLIAN CHERRY

PROJECT PLAN NO. 38F503

USDA - SOIL CONSERVATION SERVICE

004 - GENUS PRUNUS005 - SPECIES FRUTICOSA

001 - ACC. NO. ND-3, 6072T, Morden, PMK-396, MI-7063, Mich-1214, 478003

504 - ST - 20 - KANSAS

517 - PURPOSE - WNBR/WLDF - FIELD EVALUATION PLANTINGS

506	507	509		505	503	PLOT	520	501		518	NO	532		553		525	627
<u>MLRA</u>	<u>SOIL</u>	<u>TEX</u>	<u>WSG</u>	<u>COUNTY</u>	<u>COOP</u>	<u>LOC.</u>	<u>DATE</u>	<u>YR</u>		<u>NO</u>	<u>PLT</u>	<u>PCT</u>	552	<u>CRN</u>	<u>V</u>	<u>WD</u>	<u>ERO</u>
							<u>PLT</u>	<u>RC</u>	<u>AGE</u>	<u>PLTS</u>	<u>SRV</u>	<u>SRV</u>	<u>HT</u>	<u>SPD</u>	<u>I</u>	<u>COMP</u>	<u>ADP</u>
076	Haymie	VFSL		Riley	USDA,SCS,PMC,Manhattan,KS												
					Project No. 10-61												
<u>001 - ACC. NO.</u>				<u>SOURCE</u>													
PMK-396, Morden				USDA, SCS, PMC, Bismarck, ND		Fld. F-1, Row 2, Plt 6-10	4-13-66	71	5	5	5	100	3.2-	2.7-	1-7	1	1-9
								74	8	5	4	80	6.2	6.0			
													6.5	6.5	5	1	5
								75	9	5	3	60	6.6	9.2	7	1	7
								76	10	5	2	40	6.6	9.8	5	1	7
Morden				USDA, SCS, PMC, Bismarck, ND		Fld. F-2, Row 8, Plt 1-20	67	71	4	20	15	75	2.5-	3.0-	5-7	1	7
													5.2	4.7			
								73	6	20	15	75			7	1	7
								74	7	20	-0-		Removed	3-25-74			
MI-7063				USDA, SCS, PMC, Elsberry, MO		Fld. F-2, Row 6, Plt 1-20	67	71	4	20	17	85	2.7-	2.7-	7	1	7
													4.5	5.6			
								73	6	20	16	80			7	1	7
								74	7	20	-0-		Removed	3-25-74			
Mich-1214				USDA, SCS, Rose Lake PMC,		Fld. F-2, Row 7, Plt 1-20	67	71	4	20	19	95	1.5-	0.8-	7	1	7
				E. Lansing, MI									4.5	6.0			
								73	6	20	19	95			7	1	7
								74	7	20	-0-		Removed	3-25-74			

TABLE 3 DATA TO SUPPORT RELEASE OF 'SCARLET' MONGOLIAN CHERRY

PROJECT PLAN NO. 38F503

USDA - SOIL CONSERVATION SERVICE

004 - GENUS PRUNUS

005 - SPECIES FRUTICOSA

001 - ACC. NO. Mich-1214, Morden, ND-3, MI-7063, 478003

504 - ST - 26 - MICHIGAN

517 - PURPOSE - WNR/WLDF - FIELD EVALUATION PLANTINGS

506	507	509		505	503	PLOT	520	501	518	NO	532	553		525	627		
<del>MLPA</del>	<del>SOIL</del>	<del>TEX</del>	<del>WSG</del>	<del>COUNTY</del>	<del>COOP</del>	<del>LOC</del>	DATE	YR		NO	PLT	PCT	552	CRN	V	WD	ERO
							<u>PLT</u>	<u>PC</u>	<u>AGE</u>	<u>DLTS</u>	<u>SPV</u>	<u>SPV</u>	<u>HT</u>	<u>SPD</u>	<u>I</u>	<u>COMP</u>	<u>ADD</u>
098	Oshtemo	LS		Clinton	USDA, SCS, Rose Lake PMC, E. Lansing, Mich. Project No. 22-64												
<u>001 - ACC. NO.</u>				<u>SOURCE</u>													
MICH-1214				USDA, SCS, PMC, E. Lansing, Mich.			04/11/67	73	6	25	20	80	3	2	5	1	5
Morden, ND-3				USDA, SCS, PMC, Bismarck, ND			04/11/67	73	6	25	16	64	4	3	5	1	5
MI-7063				USDA, SCS, PMC, Elsberry, Missouri			04/11/67	73	6	25	24	96	3	2	3	1	3

1976-77 Removed all accessions - poor performance.

TABLE 4 DATA TO SUPPORT RELEASE OF 'SCARLET' MONGOLIAN CHERRY

PROJECT PLAN NO. 38F503

USDA - SOIL CONSERVATION SERVICE

004 - GENUS PRUNUS005 - SPECIES FRUTICOSA

001 - ACC. NO. ND-3, 6072T, MI-7544, MI-7680, MI-7063, 478003

504 - ST - 29 - MISSOURI

517 - PURPOSE - WNER/WLDF - FIELD EVALUATION PLANTINGS

506	507	509	505	503	PLOT	520	501		518	N0	532		553		525	627
<u>MLRA</u>	<u>SOIL</u>	<u>TEX</u>	<u>COUNTY</u>	<u>COOP</u>	<u>LOC.</u>	<u>DATE</u>	YR		NO	<u>PLT</u>	PCT	552	CRN	V	WD	ERO
							RC	AGE	<u>PLTS</u>	<u>SRV</u>	<u>SRV</u>	<u>HT</u>	<u>SPD</u>	<u>I</u>	<u>COMP</u>	<u>ADP</u>
116	Menfro	SIL	Lincoln	USDA, SCS, FMC, Elsberry, MI	Fld. No.											
				Project No. 2910625	8-1											

TABLE 5 DATA TO SUPPORT RELEASE OF 'SCARLET' MONGOLIAN CHERRY

PROJECT PLAN NO. 38F503

USDA - SOIL CONSERVATION SERVICE

004 - GENUS PRUNUS005 - SPECIES FRUTICOSA

001 - ACC. NO. ND-3, 6072T

504 - ST - 38 - NORTH DAKOTA

517 - PURPOSE - WNBR/WLDF - FIELD EVALUATION PLANTINGS

506 <u>MIRA</u>	507 <u>SOIL</u>	509 <u>TEX</u>	505 <u>WSG</u>	505 <u>COUNTY</u>	503 <u>COOP</u>	PLOT <u>LOC.</u>	520 DATE <u>PLT</u>	501 YR <u>RC</u>	AGE	518 NO <u>PLTS</u>	NO PLT <u>SRV</u>	532 PCT <u>SRV</u>	552 HT	553 CRN <u>SPD</u>	V <u>I</u>	525 WD <u>COMP</u>	627 ERO <u>ADP</u>
053B	Savage	SIL	3	Burleigh	NDG&F, McKenzie Slough GMA Project No. 38I302K	II/03/N-S II/11/N-S	05/15/73 05/15/74 05/15/74	82 82 82	9 8 8	6 6 6	6 5 6	100 83 100	5.1 4.7 4.6	7.1 5.8 7.0	4 3 3	1 1 1	1 1 1

STANDARDS OF COMPARISON004 - Genus - Prunus005 - Species - Pumila

001 - Acc. No.

SOURCEND-983  
6075T Meade Co., SD

II/12/S-N 05/15/74 82 8 6 5 83 2.6 4.5 9 1 7

ND-1327  
6076T Mercer Co., ND

II/06/S-N 05/24/78 82 4 6 6 100 3.1 6.9 3 1 1

ND-1348  
6077T Burleigh Co., ND

II/06/S-N 05/24/78 82 4 3 3 100 4.9 7.3 3 1 1

004 - Genus - Prunus005 - Species - tomemntosaND-32  
6080T FS Sta.  
Sutherland, Sak. Can.

II/13/N-S 05/15/74 82 8 6 6 100 6.5 8.4 3 1 1

ND-433  
6081T USDA-ARS  
Mandan, ND

II/13/N-S 05/15/74 82 8 3 3 100 6.5 7.3 5 1 3

ND-459  
6082T McHenry Co., ND

II/13/N-S 05/15/74 82 8 6 6 100 6.2 8.9 5 1 3

ND-532  
6083T Oliver Co., ND

II/09/N-S 05/15/73 82 9 4 4 100 9.3 12.6 4 1 1

004 - Genus - Prinsepia005 - Species - sinensisND-15  
6054T Res. Sta., Morden, MB, Can.

II/04/S-N 05/15/73 82 9 5 1 20 4.3 8.0 3 1 7

TABLE 5A DATA TO SUPPORT RELEASE OF 'SCARLET' MONGOLIAN CHERRY

PROJECT PLAN NO. 38F503

USDA - SOIL CONSERVATION SERVICE

004 - GENUS PRUNUS

005 - SPECIES FRUTICOSA

001 - ACC. NO. ND-3, 6072T, 478003

504 - ST - 38 - NORTH DAKOTA

517 - PURPOSE - WNR/WLDF - FIELD EVALUATION PLANTINGS

506 <u>MLRA</u>	507 <u>SOIL</u>	509 <u>TEX</u>	505 <u>WSG</u>	505 <u>COUNTY</u>	503 <u>COOP</u>	PLOT <u>LOC.</u>	520 DATE <u>PLT</u>	501 YR <u>RC</u>	<u>AGE</u>	518 NO <u>PLTS</u>	NO PLT <u>SRV</u>	532 PCT <u>SRV</u>	552 <u>HT</u>	553 CRN <u>SPD</u>	V <u>I</u>	525 WD <u>COMP</u>	627 ERO <u>ADP</u>
055A	Barnes- Aastad	L	3- 1	Bottineau	NSDU, Bottineau, ND Project No. 38I308K	1/08/S-N	05/15/74	82	a	5	5	100	3.3	8.0	2	1	1
055A	Svea- Hammerly	L	1- 1	Benson	Herman Brother's Farm Brinsmade, ND Project No. 38I305K	I/10/W-E	05/15/73	a2	9	3	2	67 <sup>1/</sup> 3.5	3.4	3	5	1	

1/ Partially damaged by wildfire in 1979.

TABLE 6 DATA TO SUPPORT RELEASE OF 'SCARLET' MONGOLIAN CHERRY

PROJECT PLAN NO. 38F503

USDA - SOIL CONSERVATION SERVICE

004 - GENUS PRUNUS

005 - SPECIES FRUTICOSA

001 - ACC. NO. ND-3, 6072T, 478003

504 - ST - 46 - SOUTH DAKOTA

517 - PURPOSE - WNBR/WLDF - FIELD EVALUATION PLANTINGS

506	507	509		505	503		520	501		518	NO	532		553		525	627
<u>MLPA</u>	<u>SOIL</u>	<u>TRY</u>	<u>WSC</u>	<u>COUNTY</u>	<u>COOP</u>	<u>PLOT</u>	<u>DATE</u>	<u>YR</u>		<u>NO</u>	<u>PLT</u>	<u>PCT</u>		<u>CRN</u>	<u>V</u>	<u>WD</u>	<u>ERO</u>
						<u>LOC.</u>	<u>PLT</u>	<u>RC</u>	<u>AGE</u>	<u>PLTS</u>	<u>SRV</u>	<u>SRV</u>	<u>HT</u>	<u>SPD</u>	<u>I</u>	<u>COMP</u>	<u>ADP</u>
055C	Highmore	SIL	3	Charles Mix	USDI, FWS, Lake Andes, NWR	2A/4/1-20	04/19/78	82	4	20	20	100	4.7	5.6	1	1	1
053C	Williams	SIL	3	Hyde	SDSU, CRS, Highmore, SD	3/07/1-10	04/11/78	82	4	10	10	100	4.1	5.5	1	1	1

TABLE 7 DATA TO SUPPORT RELEASE OF 'SCARLET' MONGOLIAN CHERRY

PROJECT PLAN NO. 38F503  
USDA - SOIL CONSERVATION SERVICE

- 004 - GENUS PRUNUS
- 005 - SPECIES FRUTICOSA
- 001 - ACC. NO. ND-3, 6072T, 478003
- 504 - ST - 27 - MINNESOTA
- 517 - PURPOSE - WNBR/WLDF - FIELD EVALUATION PLANTINGS

506	507	509		505	503		520	501		518	NO	532		553		525	627
<u>MLPA</u>	<u>SOIL</u>	<u>TEV</u>	<u>WSC</u>	<u>COUNTY</u>	<u>COOP</u>	<u>PLOT</u>	<u>DATE</u>	<u>YR</u>		<u>NO</u>	<u>PLT</u>	<u>PCT</u>	552	<u>CRN</u>	<u>V</u>	<u>WD</u>	<u>ERO</u>
						<u>LOC.</u>	<u>PLT</u>	<u>RC</u>	<u>AGE</u>	<u>PLTS</u>	<u>SRV</u>	<u>SRV</u>	<u>HT</u>	<u>SPD</u>	<u>I</u>	<u>COMP</u>	<u>ADP</u>
102A	Barnes-Buse	L	3-8	Stevens	UM, WCES, Morris, MN Proj. No. 38I318K	1/04/1-20	05/10/78	82	4	20	20	100	4.7	4.6	1	1	1



TABLE 8 DATA TO SUPPORT RELEASE OF 'SCARLET' MONGOLIAN CHERRY

USDA - SOIL CONSERVATION SERVICE

PROJECT PLAN NO. 38F503

004 - GENUS PRUNUS005 - SPECIES FRUTICOSA

MONGOLIAN CHERRY

001 - ACC. NO. ND-3, 6072T, 478003

504 - ST - 38 - NORTH DAKOTA

				505						520	501				518	NO	532	553		555	525	526	627
506	507	509		ADM	CNT	FIELD		503		DATE	517	YR	547		NO	PLT	PCT	552	CRN		WD	WD	ERO
<u>MLRA</u>	<u>SOIL</u>	<u>TEX</u>	<u>WSC</u>	<u>AREA</u>	<u>NO</u>	<u>COUNTY</u>	<u>OFFICE</u>	<u>COOP</u>		<u>PLT</u>	<u>PURP</u>	<u>RC</u>	<u>DSTRY</u>	<u>AGE</u>	<u>PLTS</u>	<u>SRV</u>	<u>SRV</u>	<u>HT</u>	<u>SPD</u>	<u>WDTH</u>	<u>COMP</u>	<u>CONT</u>	<u>ADP</u>
053B	Williams	L	3	3	013	Burke	Bowbells	Jacobson, T.		05-02-58	WNBR	81	N	23	32	20	63 <sup>3/</sup>	4.0	15.0	10	5	0	3
053B	Savage	SICL	3	4	015	Burleigh	Bismarck	NDG&F GMA		69	WNBR	81	Y	12	50	10	20 <sup>3/</sup>	2.9	3.8	5.9	5	0	3
053B	Temvik	SIL	3	4	055	McLean	Washburn	Slobojen, J.		05-03-71	WNBR	81	Y	10	25	0	-	-	-	-	-	-	-
053B				4	015	Burleigh	Bismarck	Nelson, H.		05-22-74	WNBR	81	Y	7	10	0	-	-	-	-	-	-	-
054	Chama	SI	3	5	033	Golden	Beach	Hubble. W. <sup>1/</sup>		05-05-58	WNBR	83	N	23	49	39	70 <sup>4/</sup>	8.0	10.0	12	3	5	3
054				4	085	Sioux	Selfridge	Wingerter, P.		68	WNBR	81	Y	13	140	0	-	-	-	-	-	-	-
054	Havrelon	SICL	1	4	085	Sioux	Selfridge	Dobitz, C.		05-23-69	WNBR	81	Y	12	25	0	-	-	-	-	-	-	-
055A	Embden- Egeland	FSL	5- 5	3	079	Rolette	Rolette & S.	Gilji, A.		05-08-58	WNBR	82	N	23	45	36	80 <sup>5/</sup>	2.5- 3.9	9.5	28.3	9	9	3-5
055A	Emrick- Heimdall	L	1- 3																				
055A	Arvilla	SL	6	3	069	Pierce	Rubgy	Thompson, H. <sup>1/</sup>		05-16-68	WNBR	82	N	14	400	380	95 <sup>6/</sup>	5.3	13.5	17	1	1-3	1
055B	Aastad- Barnes	SIL	1- 3	2	003	Barnes	Valley City	Krausch, J.		05-16-57	WNBR	81	N	24	11	6	55	3.8	4.4	13	9	0	7
055B	Forman- Aastad	L	3- 1	2	081	Sargent	Forman	Sargent Co. <sup>1/</sup> Park Board		05-03-68	WNBR	81	N	13	400	360	90	5.6	8.7	29.5	3	7	3
055B	Barnes- Svea	L	3- 1	2	003	Barnes	Valley city	Franklin, J.		05-22-69	WNBR	81	N	12	47	40	85	5.2	7.2	19	9	0	3- 9

1/ Source Identified Seed Class

2/ percent survival: 10-20-58 (88%)

3/ partially destroyed

4/ percent survival: 10-27-59 (80%)

5/ percent survival: 10-22-58 (74%)

percent survival: 6-9-65 (29%)

percent stand: 8-19-82 (80%), Increase due to suckering.

6/ percent survival: 10-23-68 (80%), replanted 1970

8-18-82 (95%)

**TABLE 9** DATA TO SUPPORT RELEASE OF 'SCARLET' MONGOLIAN CHERRY

USDA - SOIL CONSERVATION SERVICE

PROJECT PLAN NO. 38F503

004 - GENUS PRUNUS

005 - SPECIES FRUTICOSA

MONGOLIAN CHERRY

001 - ACC. NO. ND-3, 6072T, 478003

504 - ST - 46 - SOUTH DAKOTA

506	507	509		ADM	505		FIELD	503	520		501		518	NO	532		553		525	526	62				
<u>MLPA</u>	<u>SOIL</u>	<u>TEX</u>	<u>WSC</u>	<u>AREA</u>	<u>CNT</u>	<u>COUNTY</u>	<u>OFFICE</u>	<u>COOP</u>	<u>DATE</u>	<u>517</u>	<u>YR</u>	<u>547</u>	<u>NO</u>	<u>PLT</u>	<u>PCT</u>	<u>552</u>	<u>HT/</u>	<u>CRN</u>	<u>CS/</u>	<u>555</u>	<u>WD</u>	<u>WD</u>	<u>ER</u>		
					<u>NO</u>	<u>COUNTY</u>	<u>OFFICE</u>	<u>COOP</u>	<u>PLT</u>	<u>PURP</u>	<u>RC</u>	<u>DSTRY</u>	<u>AGE</u>	<u>PLTS</u>	<u>SRV</u>	<u>SRV</u>	<u>HT</u>	<u>YR</u>	<u>SPD</u>	<u>YR</u>	<u>WIDTH</u>	<u>COMP</u>	<u>CONT</u>	<u>ADJ</u>	
053C				4	119	Sully	Onida	Green, M.	05-03-60	WNBR	81	Y	-	18	0	-	-	-	-	-	-	-	-	-	-
061		L		5	081	Lawrence	Spearfish	A. Beck Nursery	05-11-70	WNBR	81	N	11	5	5	100	5	.4	3	.2	12	1	1	1	1
062		SIL		5	033	Custer	Custer	Krueger, W.	05- -68	WNBR	81	Y	-	10	0	-	-	-	-	-	-	-	-	-	-
063	Promise	C	4	4	085	Lyman	Kennebec	Brakke Dam Game Prod. Area	04-27-73	WNBR	81	Y	-	25	0	-	-	-	-	-	-	-	-	-	-
102A	Forman-Aastad	L	3-1	3	109	Roberts	Sisseton	Dahl, O.	06-06-68	WNBR	81	N	13	83	54	65	3	.2	3	.2	8	9	0	1	1

TABLE 10 DATA TO SUPPORT RELEASE OF 'SCARLET' MONGOLIAN CHERRY

USDA - SOIL CONSERVATION SERVICE

PROJECT PLAN NO. 38F503

004 - GENUS PRUNUS005 - SPECIES FRUTICOSA

MONGOLIAN CHERRY

001 - ACC. NO. ND-3, 6072T, 478003504 - ST - 27 - MINNESOTA

					505				520				501				518	NO	532				553				525	526	62'
506	507	509		ADM	CNT		FIELD	503			YR				NO	PLT	PCT	552	HT/	CRN	CS/	555	WD	WD					
MLRA	SOIL	TEX	WSG	AREA	NO	COUNTY	OFFICE	COOP		DATE	PURP	RC	DSTRY	AGE	PLTS	SRV	SRV	HT	YR	SPD	YR	WIDTH	COMP	CONT	ADL	ER	ADL		
056	Fargo	SIC	2	2	027	Clay	Moorhead	Gee, R.		05-24-74	WNBR	75 81	N N		1 7	25 25	22 20	88 80	- 3	- .4	- 3	- .4	- -	- 3	- 7				
056	Ulen	FSL	1K	1	119	Polk	Crookston	Buckley, P.		05-28-74	WNBR	75 79 81	N N N		1 5 7	25 25 25	22 19 12	88 76 50	- - 2	- - .3	- - 1.5	- - .2	- - -	- - 9	- 3 0	3 3 0	1		
091	Menahga	LS	7	1	057	Hubbard	Park Rapids	Zackowski, L. & A.		04-24-73	WNBR	73 76 81	N N N			25 25 25	22 15 -	88 60 -	- - -	- - -	- - -	- - -	- - -	- 0 0	3 5 -				
091	Ester-ville	SL	7	4	145	Steams	St. Cloud	St. Benedicts Coll. <sup>1/</sup>		04-27-73	WNBR	81	N		8	25	25	100	4	.5	4	.5	1	1	5	3			
091	Nymore	LS	7	2	159	Wadena	Wadena	Lageson, R.		05-02-74	WNBR	81	N		7	1 0	9	9 0	3	.	4	3	.	4	6	1	1	1	
103	Nicollet Webster	SICL	1-2	6	015	Brown	Sleepy Eye	Fuchs-Ziegenhagen		05-03-67	WNBR	70 81	N N		3 14	25 25	24 24	96 96.2	2.3 3.2	- .2	- .3	9.8 9.8	.7 .7	6.6 6.6	3-9 3-9	- 0	6 3		
103	Ester-ville	S	7	5	127	Redwood Falls	Redwood Theater	Drive-In		05-07-71	WNBR	81	N		10	43	43	100	3	.3	3	.3	20	3	0	5			

1/ Source Identified Seed Class

2/ Suckering - Excellent